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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,710

02/21/2004

Jindong Sun

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10/15/2008

MONSANTO COMPANY

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ATTENTION: GAIL P. WUELLNER, IP PARALEGAL, (E2NA)

ST. LOUIS, MO 63167

EXAMINER

KRUSE, DAVID H

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

10/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/783,710	Applicant(s) SUN ET AL.	
	Examiner David H. Kruse	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

STATUS OF THE APPLICATION

1. This Office action is in response to the Amendment and Arguments filed 7 July 2008.
2. Applicants' statement under 35 U.S.C. 103(c) is noted (see amendment to the Specification).
3. The rejections under 35 U.S.C. 102(e) and 103(c) over Jiang, U.S. Patent 6,727,034 B2 have been obviated by Applicants' statement under 35 U.S.C. 103(c).
4. Those objections or rejections not specifically addressed in this Office action are withdrawn in view of Applicants' amendments.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 10-13, 17, 18 and 20-24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 6 of U.S. Patent No. 6,717,034 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '034 patent teaches a transgenic plant comprising a recombinant polynucleotide encoding SEQ ID NO: 2 which is identical to the instant SEQ ID NO: 1 (see claim 1). The '034 patent teaches that corn is include in the plants that can be transformed (see column 21, line 63 to column 22, line 2). The '034 patent teaches that a transgene for herbicide resistance can also be introduced at column 22, lines 34-38. Under the Cooperative Research and Technology Enhancement Act of 2004 (CREATE Act) (Pub. L. 108-453, 118 Stat. 3596 (2004)), the Examiner has treated the instant application and the '034 patent as commonly owned by the same person or subject to an obligation of assignment to the same person.

8. Claims 10-13, 17, 18 and 20-24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7-13, 15-24 and 26-48 of copending Application No. 10/870,198. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the copending application and the instant application claim a plant transformed with a recombinant DNA expressing the G1073 transcription factor.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Under the Cooperative Research and

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Technology Enhancement Act of 2004 (CREATE Act) (Pub. L. 108-453, 118 Stat. 3596 (2004)), the Examiner has treated the instant application and the '034 patent as commonly owned by the same person or subject to an obligation of assignment to the same person.

Claim Rejections - 35 USC § 112

9. Claims 10-13 remain and 17, 18 and 20-24 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reason of record as set forth in the last Office action mailed 20 November 2007. Applicant's arguments filed 7 July 2008 have been fully considered but they are not persuasive.

Applicants argue that they had described a representative number of species that fall within the genus of "at least 50% identity to SEQ ID NO: 1" as recited in the instant claims as amended. Applicants argue that one skilled in the art would clearly understand that the present application extends to homologs and variants of the G1073 sequence having substitutions outside of the functional conserved domain. Applicants argue that the present application discloses a number of native homologs and a multitude of specific variant proteins that can be used to provide the water deficit tolerant plants of the present invention (pages 4-6 of the Arguments). These arguments are not found to be persuasive. Applicants do not teach a representative number of

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species as broadly claimed. See MPEP § 2163 which states that the claimed invention as a whole may not be adequately described where an invention is described solely in terms of a method of its making coupled with its function and there is no described or art-recognized correlation or relationship between the structure of the invention and its function. A biomolecule sequence described only by a functional characteristic, without any known or disclosed correlation between that function and the structure of the sequence, normally is not a sufficient identifying characteristic for written description purposes, even when accompanied by a method of obtaining the claimed sequence. While a description of a representative number of species is adequate to represent an entire genus, wherein there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus (see MPEP § 2163).

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 10, 11, 13, 17, 18 and 20-24 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ratcliffe *et al* (WO 01/26459 A2) taken with the evidence of Jiang *et al* (U.S. Patent Application Publication 2005/0097638 A1).

Ratcliffe *et al* disclose a transgenic plant having in its genome a recombinant DNA which expresses a transcription factor having instant SEQ ID NO: 1 (see claim 4,

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for example). Instant SEQ ID NO: 1 is 100% identical to SEQ ID NO: 48 of the prior art. Ratcliffe *et al* disclose that the transgenic plant can be corn at page 17, line 1. Ratcliffe *et al* disclose that the transgenic plant can further comprise a herbicide resistance gene, particularly a phosphinothricin acetyltransferase at page 15, 1st paragraph. The Examiner does not consider the limitation “hybrid corn” as distinguishing from the disclosure of the prior art as “hybrid corn” is the predominant commercial type of corn in the instant art. Jaing *et al* teach that SEQ ID NO: 48 of the prior art, inherently produces drought tolerance in a transgenic plant (page 41, right column, paragraph 0392). Hence, Ratcliffe *et al* had previously disclosed the claim limitations.

Claim Rejections - 35 USC § 103

12. Claims 8, 9, 12, 14-16 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ratcliffe *et al* (WO 01/26459 A2) in view of Buengen (U.S. Patent 5,866,763).

The teachings of Ratcliffe *et al* are outlined above.

Ratcliffe *et al* do not specifically teach a method of imparting water deficit tolerance to a crop plant by crossing and screening. Ratcliffe *et al* do not teach a hybrid corn seed comprising both herbicide resistance and pest resistance.

Buengen teaches making hybrid corn plants by crossing a transgenic corn line with another corn line, wherein one of the corn lines comprise at least one transgene for insect resistance and/or herbicide resistance (see claim 14).

The instant claims are obvious because Ratcliffe *et al* teach transformation and regeneration of corn plants using a transgene encoding instant SEQ ID NO: 1. Ratcliffe

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et al teach screening said transformed plants for modified traits (page 17, lines 26-27), such traits include enhanced tolerance to drought (page 7, lines 16-18). Introduction of such a trait into a hybrid corn plant by methods standard in the instant art would have been obvious to one of ordinary skill in the art at the time of Applicants' invention in view of the teachings of Buengen. Given the success of Ratcliffe *et al*, one of ordinary skill in the instant art would have had a reasonable expectation of success, given the function of instant SEQ ID NO: 1 appears to flow from the structure.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. No claims are allowed.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

/David H Kruse/
Primary Examiner, Art Unit 1638
10 October 2008